



LEVERAGING BENCHMARKING TO DRIVE SAVINGS

PREPARED FOR THE URBAN SUSTAINABILITY
DIRECTORS NETWORK INNOVATION GRANT PROJECT,
LEVERAGING BENCHMARKING TO DRIVE SAVINGS



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EXECUTIVE SUMMARY

Background and Context

The purpose of this project was to solve collaboration barriers between local utilities and cities around using energy benchmarking data that is collected by local governments. Specifically, the project aimed to harness energy benchmarking ordinance data to conduct outreach around energy saving opportunities, with a goal of driving deeper energy savings.

A total of 30 cities and one county have now adopted energy benchmarking ordinances, which require building owners to report whole-building energy use information to their city or county. These energy transparency laws encourage higher energy efficiency in buildings by making the information available to building owners, property managers, tenants, and the public, and have generally led to modest but measurable savings across the buildings required to comply. For example, Chicago has found energy savings of 1–2% per 1–2 years, on average.

Out of the 31 local governments with such ordinances, 15 require additional actions (such as energy audits or energy tune-ups) and/or require building owners to meet energy performance standards. This project may not be as relevant to those cities, but is intended to inform the local governments that collect energy benchmarking information but do not require additional energy savings or actions.

Due to these ordinances, cities now own a wealth of information about energy, buildings, and contacts for each building, that was formerly not available. However, the key “nut to crack” with energy benchmarking ordinances is how to collaborate with local utilities so both the city and the utility are using (and sharing) their different expertise and data to drive deeper energy efficiency through the utilities’ efficiency program offerings. No city has successfully worked through this problem with a local investor-owned utility.

This paper summarizes how to better leverage an energy benchmarking ordinance to drive action through data sharing with the local utility and coordinated outreach regarding energy efficiency opportunities.

This pilot project worked to solve this problem by completing the following activities:

- **Conduct Background Research**: Conduct research to gain a better understanding of the utilities’ outreach barriers and determine if energy benchmarking information would help overcome these barriers.

- Create a Data Sharing Framework: Develop a standard, two-way data sharing agreement between the city and the utility so information could begin flowing between those entities (i.e. the city would share relevant data with the utility and the utility would also share relevant data with the city).
- Perform Outreach: Identify several low-performing buildings and conduct outreach using the contact information gathered through the energy benchmarking process.
- Analyze Results: Determine if the outreach led building owners to make improvements to energy performance as a means of testing the data sharing framework.

Results

Some of the key takeaways include the following:

1. There is high potential for energy benchmarking data to drive deeper savings. Utilities and their program administrators are still in the process of incorporating targeted marketing, education, and outreach practices into program design to drive energy savings. Great opportunity does exist to partner with cities to address key barriers to achieving higher savings.
2. Multiple options for data sharing exist that meet the goals of the local government. Two-way data sharing between the city and the utility might not be possible as originally envisioned due to confidentiality laws and restrictions, but there are other options that meet the same goals. One option is for the city to request anonymized data from the utility and/or work through a third-party bridge organization to receive information from the utility.
3. Outreach using energy benchmarking data appears to be effective. Specifically, using the contact information gathered for each property through the energy benchmarking process appears to be more effective in reaching the appropriate decision maker than using the data typically available to a utility. If the outreach is conducted by the city, typically a trusted entity to local property owners and managers, the campaign could be even more effective.
4. Other options exist to gain information about the impact of outreach that may be easier than data sharing with a utility. One option is to survey property owners and managers about the types of upgrades completed, and the motivation for completing those upgrades. Another solution could be to obtain the building owner's permission to access certain utility data (such as program participation and associated savings) at the time that energy benchmarking reports are filed with the city or county.

PROJECT DESCRIPTION

The project team completed this work under a grant provided by the Urban Sustainability Directors' Network (USDN) Innovation Grant Funding. The project included four main activities:

- Task 1. Research utility marketing strategies. The project team conducted research on typical utility marketing strategies and the value of energy benchmarking data, as well as the barriers to sharing data. This research culminated in a white paper ([online at the USDN website here](#)) summarizing typical marketing strategies used by utilities, and how energy benchmarking information would benefit the utilities. The paper also documented methods used to research utility marketing programs, as well as a summary of barriers to data sharing and how those barriers might be overcome.
- Task 2. Develop a data sharing agreement for use between the city and the utility. The data sharing agreement ([online at the USDN website here](#)) serves as a template for other cities and utilities to use. The agreement incorporates key principles from the research, such as what types of provisions are needed so that data can be shared without any violation of privacy laws. Due to the barriers identified in the research stage of the project, the completed data sharing agreement allows the city to share the data with the utility.
- Task 3. Conduct outreach and summarize initial results. In this stage of the project, the team shared the relevant data and used the information to conduct outreach to support the mutual goal of increasing energy efficiency retrofits in the targeted buildings. The first step of the process was to filter the data to identify buildings with poor energy performance. The project team then targeted these properties in conducting outreach. To track whether that outreach was successful in initiating building energy retrofits, the team worked with the utility to obtain anonymized data regarding the percentage of targeted buildings that completed or initiated energy retrofits. [Preliminary results are posted on the USDN website here.](#)
- Task 4. Create a final report with outcomes and recommendations. This document serves as the final report for the project. The project team created a summary of all project activities, outcomes and lessons learned, as well as recommendations for other cities looking to replicate these results.

DATA SHARING OPTIONS

Background and Context

Initial research into utilities' typical outreach barriers conducted as Task 1 of this project showed that energy benchmarking data did hold promise to help reduce some, but not all, outreach barriers faced by utilities. The most valuable data is posited to be the contact information for the building owners (or their representatives, such as property managers) associated with properties required to benchmark.

Most utilities do not already own or have access to this contact information due to how utility accounts are typically configured. The utility does have a contact for each account, but those contacts are often not the same entities who own or manage the property, and thus are not the decision makers regarding energy efficiency upgrades. In many cases, the contact for the utility may be in an accounting department, or a third-party service that processes utility bill payments. The contact information for the building owner or property manager owned by the city and obtained from the energy benchmarking process could be used to target the lowest performing buildings to encourage the building owners to take advantage of the utility-provided energy efficiency rebate and incentive programs.

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Energy benchmarking does provide additional data that is of value to the utilities. For areas served by an electric utility separate from a natural gas utility, understanding the total energy consumption (both natural gas and electricity, plus any other fuels) at a property can be helpful. Most utilities only have data on the consumption for the energy provided by that utility. Energy consumption by fuel type is typically disclosed by most (but not all) cities with energy benchmarking and transparency ordinances.

Also, since some utilities are beginning to do additional market segmentation as part of their marketing strategy, the use of energy benchmarking data to assist with market segmentation may be of interest. However, this project did not explore data sharing for the particular use case of market segmentation.

A Summary of Data Sharing Options

As initially envisioned, the data sharing framework developed in Task 2 of this project was intended to facilitate two-way data sharing between the city and the utility. The data sharing framework or agreement also would serve as a template for other cities and utilities to use. In the process of creating the template Data Sharing Agreement, the project team also explored various frameworks for data sharing between cities and the utilities serving their area, which are described in more detail below.

For the purposes of this project, the key data that the city would share is contact information for the buildings that are required to complete energy benchmarking under the city's local ordinance. This contact information would then be used to conduct outreach for the utility's incentive and rebate programs. The key data requested back from the utility in the framework of this project is a list of buildings that had undertaken energy efficiency upgrades through participation in the utility-offered incentive and rebate programs.

While not included in the scope of this project, city staff could also request more details about these upgrades, such as the typical retrofits that were completed in different building types. For example, hospitals, schools, office buildings, and multifamily buildings might all be completing different types of retrofits. In addition, cities could also request information regarding the energy and cost savings projections associated with the different retrofits. Through a data sharing framework, the city's data could enable the utility to better conduct marketing for its programs. In turn, the utility's data would help the city team better understand the overall impact of its energy benchmarking ordinance, and more specifically, the impact of the outreach using the data gathered from the ordinance.

Through a data sharing framework, the city's data could enable the utility to better conduct marketing for its programs. In turn, the utility's data would help the city team better understand the overall impact of its energy benchmarking ordinance, and more specifically, the impact of the outreach using the data gathered from the ordinance.

City officials could also develop new incentive or rebate programs for underserved areas or underserved building types or could collaborate with utilities to develop such offerings using the results of the data sharing framework.

Key Assumptions on the Data Sharing Frameworks

Two key assumptions are included in the data sharing approaches described in this report. The first assumption is that all or most energy improvements completed by the building owners will be done while taking part in the utility incentive and rebate programs. These programs provide cash incentives or rebates for making improvements and are funded by utility ratepayers. Some programs also offer free technical assistance or other services. While many property owners and managers take advantage of these offerings, there are certainly some who complete energy upgrades and do not participate in the utility programs. In addition, some upgrades are not eligible for rebates or incentives. An example might be newer technologies, in which there has not yet been enough time to work through the typical vetting processes that are in place for utility incentive and rebate programs. Another example could be retrofits with longer payback periods, which are often not incentivized by utility energy efficiency programs.

A second assumption is that the outreach conducted using the energy benchmarking contact information was a key factor that led the building owner to begin taking advantage of the utility incentive and rebate programs. In some cases, the outreach may have coincided with other factors that led a building owner to complete the upgrades, such as existing capital plans or refinancing cycles.

The complexity of these approaches, and the risk that state laws or regulations can be a barrier to the utility or the city to share data means that cities should consult with their legal advisors early in the process to identify solutions appropriate to their state.

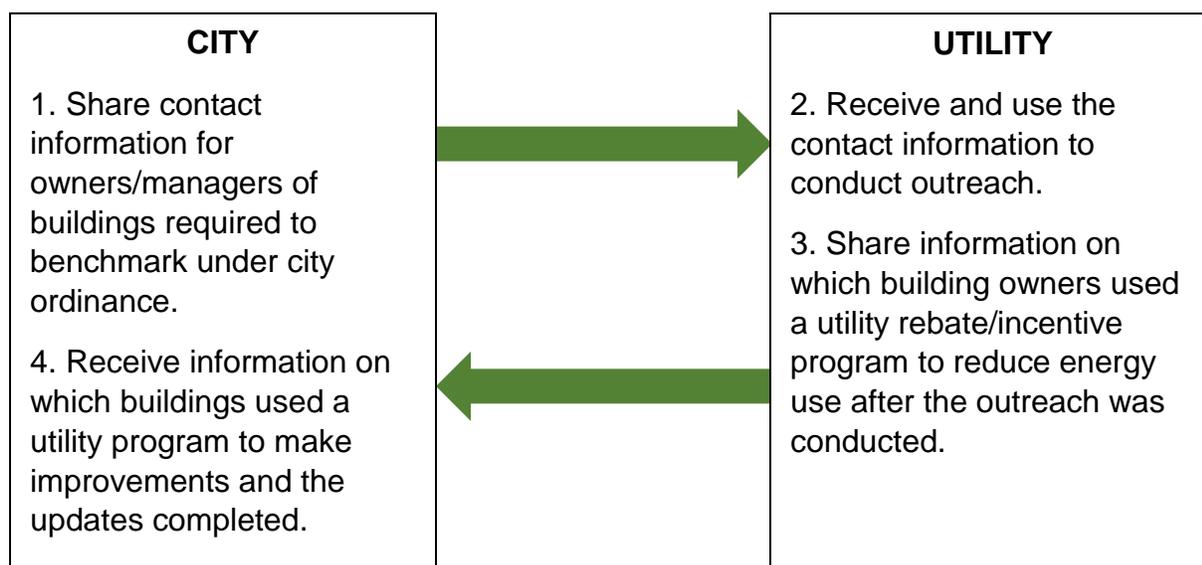
Framework One: Two-Way Data Sharing

The initial data sharing framework pursued in this project is shown in Figure 1 below.

As shown in Figure 1, the data sharing framework was intended to facilitate two-way data sharing between the city and the utility. Because the contact information for each building was thought to be the most important data for the utility, this data would be provided by the city to the utility. This framework is also particularly focused on the utility (or its program implementer) conducting outreach to encourage building owners to improve energy efficiency and sharing the results back with the city.

The main advantage to the utility (or the utility's program implementer) is to gain information that would reduce the time and effort needed to conduct outreach and recruit participants into energy efficiency programs. The city would help spur additional efficiency improvements and would also gain insights into the effectiveness of using benchmarking contact information for outreach purposes.

Figure 1. Two-Way Data Sharing Between City and Utility



Unfortunately, this model of data sharing proved to be an unsuccessful approach for this project. The utility was not willing to share data on which buildings had taken part in various efficiency programs without building owner consent due to confidentiality issues, even with a signed confidentiality agreement in place. The project team did not pursue the option of gaining consent from every building owner, which would be an onerous and difficult task.

Data and Privacy Laws

Data sharing and privacy requirements vary greatly from state to state, depending on state law or the interpretation of state laws. For example, the Illinois Public Utilities Act does allow electric utilities in the state to provide “information concerning the usage, load shape curves, and other characteristics of customers by customer classification and location” to cities. However, the statute also specifies that “no customer specific billing, usage, or load shape data shall be provided [to cities] under this subsection unless authorization to provide that information is provided by the customer.”

The statute also notes that rollout of smart grid infrastructure must also secure the privacy of the customer’s “personal information,” defined as: “the customer’s name, address, telephone number, and other personally identifying information, as well as information about the customer’s electric usage.” Such “personal information” is also not allowed to be used for other “commercial purposes” not reasonably related to the conduct of the utility’s business.

Legal interpretation of these statutes could vary. For example, if the City of Chicago requested information about upgrades in specific buildings, such information may or may not be “personal information” as defined in the state law. However, many utilities do treat program participation as confidential, creating barriers for sharing data even between contracted vendors of the same utility working on different programs that relate to the same customer.

However, there are rare examples of program participation not being treated as confidential. For example, the New Jersey SmartStart Buildings program offered by the New Jersey Clean Energy Program maintains a downloadable public list of program participants, including business, address, and rebate type/amount. Where there is ambiguity that prevents a city and utility from sharing data in pursuit of deeper efficiency, cities may be able to work with utilities and jointly approach state public utilities commissions or their state legislature to clarify appropriate rules or policies.

Another key question to consider in data sharing agreements would be the applicability of public records requirements or freedom of information act (FOIA) laws, if the data were shared by the utility under a confidentiality agreement.

Framework Two: Modified Two-Way Data Sharing

Because the utility was concerned about privacy laws, the initial model of two-way data sharing shown in Figure 1 was not considered to be a feasible approach for this pilot. Thus, the project team focused on a modified data sharing approach, as shown in Figure 2.

The modified approach included two key changes. First, the City conducted the initial outreach by sending an email to the building owner or her representatives, urging participation in a utility efficiency incentive program, or inviting the representatives to learn more, by attending an energy efficiency workshop, instead of relying on the utility to conduct the outreach.

KEY FINDING

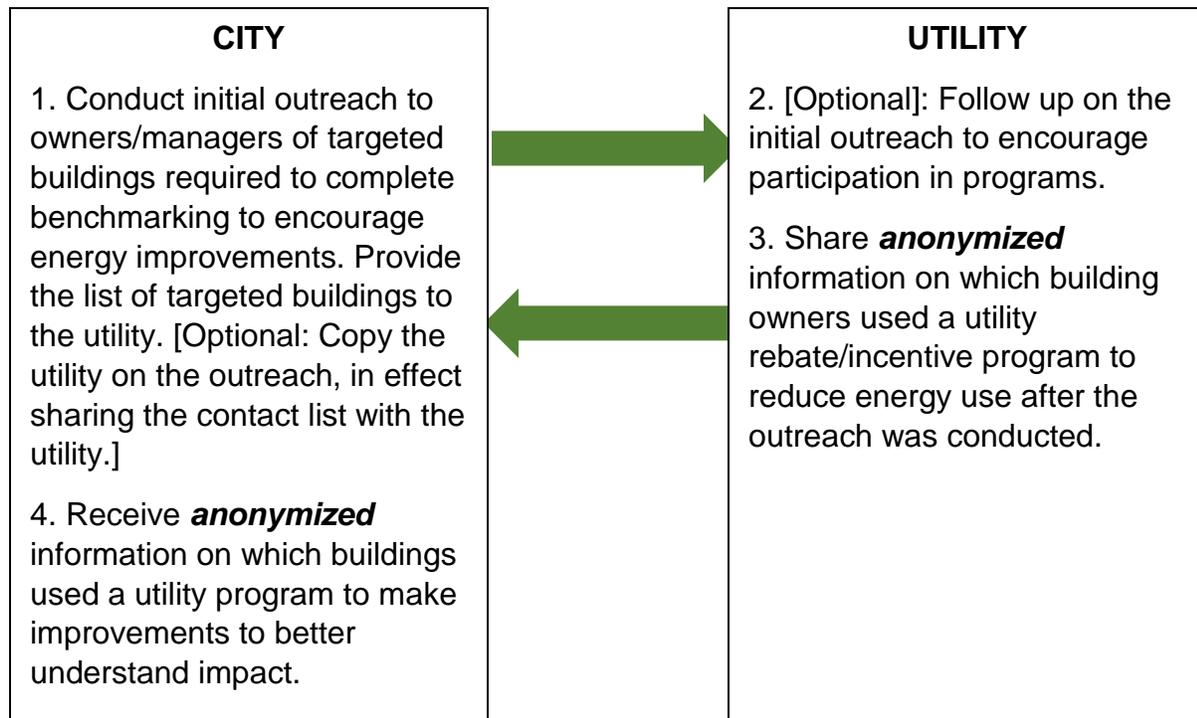
Data and Privacy Laws

If a city is looking to work with its local utility(ies) on a data sharing project, start with researching your state’s laws.

In some cases, no law may exist, which provides a **unique opportunity** to possibly inform and shape any future statutes regarding utility data sharing.

The City then shared this list of targeted buildings with the utility. The list of targeted buildings did not contain any customer information, such as the name of building representatives and associated contact information (phone numbers, email addresses, etc.), but only the address and basic information about the building.

Figure 2. Modified Two-Way Data Sharing Between City and Utility



Second, the utility was then asked to review the list of targeted buildings and share anonymized data back with the City on the number (or percentage) of buildings that used a utility incentive or rebate program. By only sending the number of buildings, the utility would not violate any confidentiality requirements, and would still provide feedback to the City on the impact of its outreach. The utility agreed that this approach would be acceptable and would not violate any privacy laws.

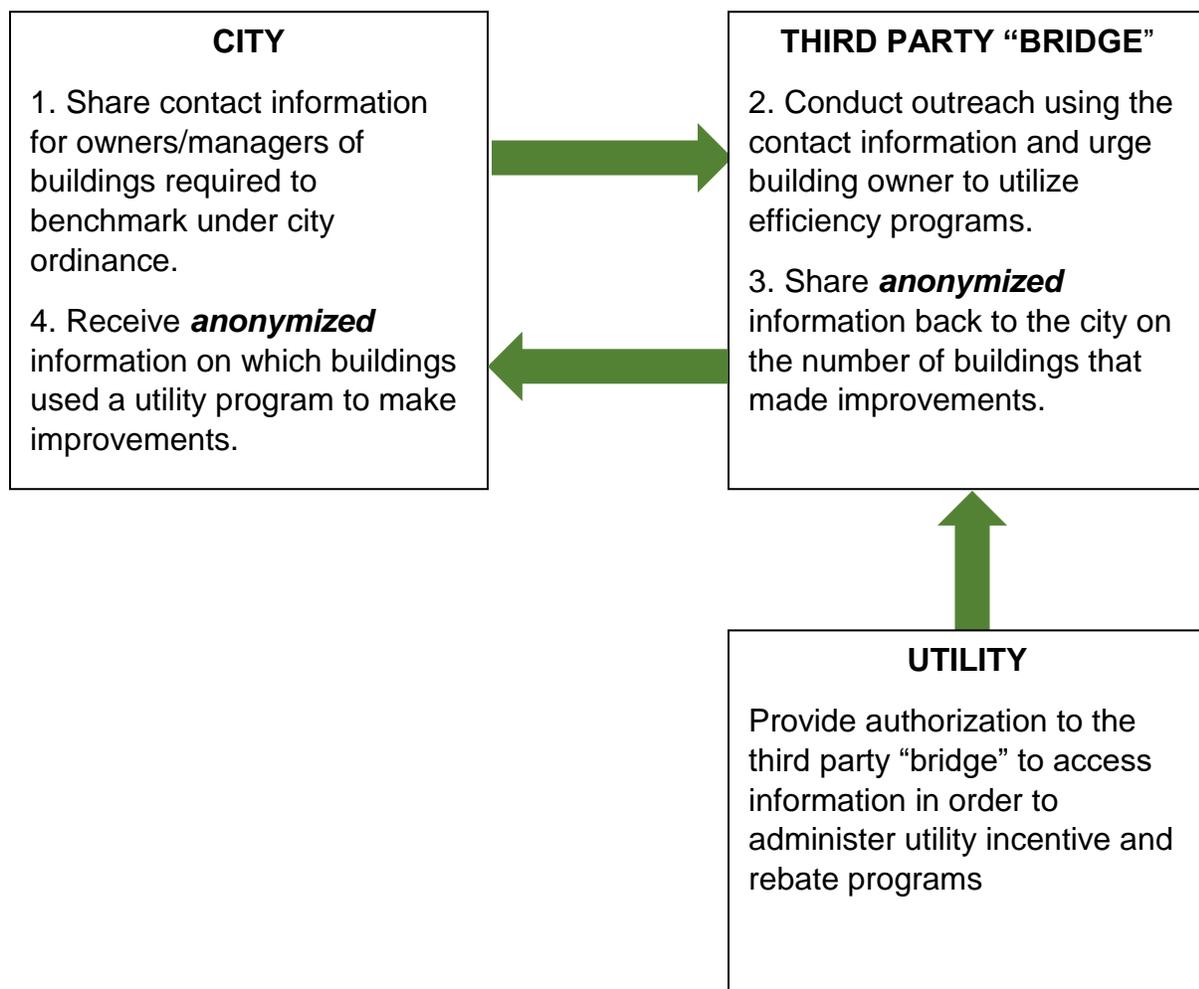
In a slightly different version of this framework, the utility was copied on the initial outreach (an optional part of this framework) and then the utility program representative followed up to encourage the building owner to participate in the program. In this optional version of the framework, the City essentially shares contact information with the utility (or the utility's program implementer).

This framework was ultimately completed between the City of Chicago and the utilities that serve the Chicago area, and the results are discussed in the Outreach Results section of this paper.

Framework Three: Three-Way Data Sharing

A final option for a data sharing framework would use a third-party “bridge” to facilitate data sharing. Because many utilities use third-party contractors to implement energy efficiency programs, these contractors may be willing to serve as a “bridge” between the city and the utility. In some cases, these contractors have financial incentives in place to improve the impact of their outreach and to drive more customers to participate in the utility energy efficiency programs. In essence, this is a slightly updated version of the Modified Two-Way Data Sharing shown in Figure 2.

Figure 3: Three-Way Data Sharing Between City, Utility, and Third Party “Bridge”



KEY FINDING

Use of Third-Party Bridge Organizations

Working through a third-party bridge organization that already has a data sharing agreement in place with the utility could save time. If under contract to implement energy efficiency programs or conduct marketing for those programs, these organizations may be highly motivated to use energy benchmarking data to conduct outreach.

The main advantage of the three-way data sharing approach above is that the third-party “bridge” organization is typically a program implementer working on behalf of the utility. Thus, it may be easier for the city to work through this third party than to work directly with the utility. These third parties typically already have confidentiality agreements in place and therefore have access to utility data. Some third parties are responsible solely for marketing and outreach and may find the energy benchmarking data to be highly valuable for completion of their work.

Some third parties are responsible solely for marketing and outreach and may find the energy benchmarking data to be highly valuable for completion of their work.

One potential barrier to be aware of is that, as a utility vendor, third parties may be subject to extensive confidentiality agreements that would need to be amended in order to allow this kind of information sharing. That may or may not be feasible depending on the state.

Additional Options for Gathering Energy Outreach Information

Due to the difficulty in working through privacy laws and other restrictions, cities may wish to explore other options to gain information about the impact of benchmarking and related outreach. These alternative options may be easier and faster to execute.

“Opting In” to Data Sharing Through the Benchmarking Compliance Process

One option is to gather customer consent for data sharing. As noted above, some state laws may require the utility to gain customer consent for data sharing of any aspect of the customer’s account, including participation in the utility’s incentive and rebate programs. Rather than going from customer to customer to gain this consent, another

idea is to create an automatic “opt in” to data sharing at the time that the building owner (or property manager) complies with the city’s energy benchmarking requirements.

An “opting in” data sharing agreement could be created so that it is like automatic enrollment. Any user would automatically opt in to having their rebate and incentive program information shared with the city but could opt out at any time. For example, this opt-in feature could occur by including a consent form within the ENERGY STAR Portfolio Manager software that is used to collect energy benchmarking information. Opting out could be as simple as clicking an extra check box in Portfolio Manager, or possibly filling out an submitting an opt-out form to the city.

In order to use ENERGY STAR Portfolio Manager to include an “opt in” data sharing option, cities would need to work with the U.S. Environmental Protection Agency, which operates the ENERGY STAR Portfolio Manager software. Such changes to Portfolio Manager typically require long timelines to propose, approve, and develop. In addition, each city may need to conduct a legal review of the exact language that is needed to allow data sharing under their state laws.

Gathering Data Through a Benchmarking Survey

Another option is to conduct a survey to property owners and managers to ask about the types of upgrades completed, and the motivation for completing those upgrades. Creating a survey is typically an easy and low-cost method for gathering information. The city could control the survey without needing to work through the utility and could use the city-owned contact information associated with the energy benchmarking ordinance to send out the survey and solicit responses.

While surveys can provide valuable information, there are some disadvantages. Survey responses tend to be somewhat low, at around 10–15%. Surveys rely on self-reported information, and there may be errors in the information reported. Without a data sharing agreement with the utility, the city may not be able to verify the information that is reported through the survey. Finally, survey respondents might be self-selected towards those who are more interested in the topic of energy efficiency, and responses might thus show a higher bias towards more energy efficiency projects than are typically completed in the broader population.

PILOT PROJECT OUTREACH RESULTS

The project team worked to conduct outreach in two phases in this project, which are described in more detail below.

Phase I

In Phase I, the team conducted outreach to eight property owners or managers associated with at least 27 buildings. The targeted buildings appeared to have high levels of natural gas use, based on their energy benchmarking results. All targeted buildings were also considered Class B or Class C offices.

The outreach consisted of an email introduction to the building owner or representative, sent by from a City email address, with the utility program implementer from the natural gas utility copied on the email. The utility program implementer was then free to respond to the email to conduct follow up and encourage the contact to set up a meeting to learn more about ways to save on their natural gas use.

The outreach results are shown in Table 1 below. Although a very small sample, the results are encouraging. One property manager (12.5% of contacts) moved forward with multiple energy-saving projects at all the buildings under his management that qualified for the utility rebate and incentive programs. In addition, this property manager may have also connected with the electric utility's programs, which are separate from the natural gas programs. For another four people (50% of contacts), the utility program representative held at least one initial conversation or conducted a free energy assessment. While these contacts have not yet moved forward with an energy upgrade project, they did begin to form a relationship with the utility's program implementer, who is planning to follow up in a few months to encourage next steps on making improvements (using the utility rebate and incentive programs).

One common question for cities with audit requirements is how many properties that complete an audit move forward with an energy saving project. In the Phase I outreach, four property managers completed the free utility assessment, and one manager moved forward with upgrades, for a 25% "audit to upgrade" conversion rate. New York City operates the New York City Retrofit Accelerator, a program that similarly targets properties that are required to benchmark and offers free, personalized advisory services for making energy efficiency improvements. The Retrofit Accelerator program has seen even higher "audit to upgrade" rates of up to 40%.

Table 1: Phase I Outreach Results to Eight Property Owners or Managers

OUTREACH RESULT	NUMBER OF CONTACTS	PERCENTAGE
Group 1: No response	3	37.5%
Group 2: Held initial meeting, then no response	1	12.5%
Group 3: Had free utility energy assessment completed, but then no upgrades completed	3	37.5%
Group 4: Had free utility energy assessment completed, AND completed one or more upgrades	1	12.5%
TOTAL	8	100.0%

In this phase of the project, the project team found that smaller class B and C buildings, especially those with low ENERGY STAR scores, have fewer resources to complete energy saving projects. They may not have a dedicated chief engineer; they may have disconnect between the owner and the property manager; and there may be more difficulty getting buy-in from all relevant stakeholders. In addition, project costs are more difficult to cover in these properties, even with the utility rebates.

At the same time, at least one property manager was highly responsive to the initial outreach; the program implementer believed that one reason may have been because the first email came from the City, a trusted entity, rather than a “cold call” from the utility program implementer.

KEY FINDING

Timelines for Measuring Outreach Impacts

When reviewing the impact of outreach, consider longer timelines, such as one to two years. Some property teams may be highly motivated to complete upgrades but may need several months or even a few years before they are able to complete the projects.

Another finding from Phase I is that the impact from outreach programs may not immediately be available. For example, one program implementer mentioned that many building teams may complete a free energy assessment provided by the utility but might not move forward with any recommended upgrades for several months, or even one to two years. These types of delays are common for multiple reasons, such as the need to include energy upgrade projects in capital budgets, the time needed to vet and choose proposals from contractors, or other competing upgrade projects already in motion.

Phase II

In Phase II of the outreach, the program team determined that measuring the impact of outreach conducted a few weeks or a few months ago might not be the most appropriate approach, due to the long timelines typically needed for property management teams to complete energy upgrades.

The main innovation in Phase II of the outreach was to look back over outreach conducted in 2016. During that time, the City of Chicago had been conducting similar outreach by targeting building owners and managers required to benchmark and inviting those representatives to various energy efficiency meetings or workshops. In all, the project team identified representatives of 83 properties who had been invited to and had attended at least one energy efficiency workshop or event in 2016. For each event, the City was a partner or helped to promote the event, although some events were also facilitated by other partners. The three events held in 2016 are listed below:

- Building Energy Efficiency Training, held by the Institute for Real Estate Management (IREM) on June 22, 2016
- Interfaith Sustainability Summit, held in collaboration with multiple partners on July 21, 2016
- Taking Energy Benchmarking to the Next Level, held by the Illinois Green Alliance on November 30, 2016

This project was completed in early 2019, approximately two to two and a half years after the initial workshops, which the project team posited was a more appropriate timeline for measuring the impact of outreach.

The electric utility, ComEd, reviewed the list of 83 properties and provided anonymized results back to the City regarding how many had moved forward with an energy efficiency project, which are shown in Table 2.

Table 2: Phase II Outreach Results to Eighty-Three Property Owners or Managers

OUTREACH RESULT	NUMBER OF CONTACTS	PERCENTAGE
Group 1: No response	54	65%
Group 2: Held initial meeting, then no response	Unknown	Not available
Group 3: Had free utility energy assessment completed, but then no upgrades completed	Unknown	Not available
Group 4: Had free utility energy assessment completed, AND completed one or more upgrades	29	35%
TOTAL	83	100%

Initial results are even more promising than the Phase I results. About 35 of those who attended a workshop via outreach in 2016 did move forward with an energy assessment and/or energy upgrade project, according to the anonymized results. In one point of comparison, typical outreach results from some of ComEd's other outreach programs are around 12%; thus, this outreach may have been about three times more effective than typical outreach.

KEY FINDING

Impact of Outreach Using Energy Benchmarking Contact Information

Outreach using energy benchmarking information may be significantly more effective than a typical outreach effort.

However, the project team acknowledges that those who responded to the outreach and attended the workshop are likely to be self-selected as more interested in energy efficiency than the typical building representative. Because the full invitation lists are not

available, the project team does not know the total number of representatives invited to the events, nor does the team know the success rate of the initial outreach. Thus, Phase II of this project is more specifically concerned with the action rate of those who move forward with energy-saving projects once they are educated on various resources and options available.

ADDITIONAL EXAMPLES OF CITY-UTILITY DATA SHARING ARRANGEMENTS

City of Minneapolis

Another option available to some cities is to work through the franchise agreement to develop data sharing partnerships with local utilities. The City of Minneapolis has used its franchise agreements with Xcel Energy and CenterPoint Energy to form a unique Clean Energy Partnership with the utilities that seeks to advance the city's clean energy goals. Data sharing is one of many joint initiatives included in the partnership. As part of the partnership, each utility and the City appoint representatives to serve on a joint board to oversee the work of the partnership by producing a Work Plan every two years.

From its initial Work Plan covering activities from 2015–2016 to its most current Work Plan, the Clean Energy Partnership has included data sharing as a key strategy that is included to reach the Partnership's goals. In the 2015–2016 Work Plan, for example, a key strategy included "Using data on program participation to aide decision-making and develop metrics." In addition, the Work Plan states that "A key to developing effective engagement strategies will be understanding how well utility programs are already serving Minneapolis, what areas are underrepresented, and what programs are most effective. These types of data will also be essential for developing metrics to track the progress of the Partnership going forward."

The 2015–2016 Work Plan also identifies some of the data to be collected, including analysis and mapping of current and historic participation in utility programs by customers in 1–4 unit properties, multifamily properties, commercial properties, and small commercial properties, to help target outreach efforts and inform residents and policymakers about progress. The analysis should also identify areas previously underserved by the programs.

The Partnership also identified several metrics to be used for tracking progress of the Partnership, including some of the following metrics that are very similar to the data sought in this project:

- Home Energy Squad visits¹
 - Participant Count (with geographic breakdown)
 - Conversion rate: How many squad visits caused the customer to complete energy efficiency upgrades?
 - What actions were taken/What was installed?
 - Energy/carbon savings
- Xcel Energy & CenterPoint Energy audits
 - Participant Count (with geographic breakdown)
 - Conversion Rates
 - Energy usage access
 - Geographic breakdown of customer energy usage data
 - Develop a list of data access needs and limitations

These metrics not only help inform the Partnership’s work, but also form the basis of the Partnership’s Annual Reports. The Partnership issued Annual Reports from 2015–2017 showing these and other participation rates, including maps showing anonymized results by area within the City.

City of Saint Louis

Through implementation of its energy benchmarking ordinance, the City of Saint Louis has worked with its local utility to share energy benchmarking information. The purpose of sharing the data was to facilitate the provision of whole-building energy data from the utility to the building owner. The goal of this data sharing project is to make it easier for property owners to comply with the City’s energy benchmarking ordinance.

Ameren Missouri Business Center = the Ameren contact center.

In 2017, the City provided the list of buildings required to complete energy benchmarking to the Ameren Missouri Business Center. More specifically, the City

¹ The Home Energy Squad is a joint program offered by Xcel Energy and CenterPoint Energy to help residential customers reduce energy use. According to the Center for Energy and the Environment, Home Energy Squad visits are currently free for Minneapolis residents with a combined household income under \$94,300. All residents in certain Minneapolis “Green Zones” neighborhoods are also eligible for a free visit regardless of income. Sources: <https://www.homeenergysquad.net/>
<https://www.mncee.org/programs/homes/home-energy-squad-enhanced/>

provided the building name, building address, and the unique St Louis Building ID number with the Ameren Missouri Business Center.

A special flag was also added to the multifamily buildings, which those properties were assumed to ask for data more frequently than other building types. In future years, the City provided updated lists with the same information.

Importantly, the City did not share any building owners' or property managers' names or contact information (such as phone numbers or email addresses).

Because the data was intended to allow the utility to improve their data systems in order to share whole-building energy consumption data on a timely basis, the City shared the energy benchmarking lists well in advance of the reporting deadline, and even in advance of sending the first notification letter to building owners regarding their need to comply with the energy benchmarking ordinance.

The City may continue to work with its local utilities to share additional information on which buildings have implemented retrofits, like the data sharing completed in this pilot project.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The pilot project described in this report demonstrates that cities and counties can drive more energy efficiency action by conducting outreach in coordination with their utilities and working with the utility in a data sharing framework to track the results from the outreach.

In the pilot project, the City of Chicago coordinated outreach to building owners based on energy benchmarking results and contact information from energy benchmarking. The City then finalized a one-way data sharing process with the local utilities to track progress and found that many of the owners contacted by the City did take an action to begin improving energy efficiency at their property. Cities and counties can drive more energy efficiency action by conducting outreach in coordination with their utilities and working with the utility in a data sharing framework to track the results from the outreach.

Cities and counties can drive more energy efficiency action by conducting outreach in coordination with their utilities and working with the utility in a data sharing framework to track the results from the outreach.

Multiple examples now exist, including the pilot described in this paper, that show how partnering with a utility on outreach and data sharing can lead to improved energy efficiency results. Also, there are also additional options for tracking results in the case that data sharing is not possible, such as conducting a survey to gather information from building owners on the actions they have taken to improve energy efficiency.

Recommendations

Cities looking to leverage their energy benchmarking ordinance to drive additional action on energy efficiency may wish to consider the following recommendations:

1. Research state laws on data confidentiality: City practitioners should research the utility data sharing laws and regulations in their state as they relate to sharing data between the city and the utility, as well as customer privacy. These regulations vary greatly from state to state. If no regulations exist, the

city and its partners may have a unique opportunity to help shape such regulations by approaching the utility regulatory commission or the state legislature.

2. Determine the outreach method: City practitioners should determine whether they plan to conduct outreach directly, or whether they prefer to share data so the utility (or its program implementer) can use the information to conduct outreach. This decision may be based on multiple factors, including; city staff capacity; the stakeholders' willingness to react to a message from the city versus the utility; and the scope and timeline for the outreach in relation to city goals. This decision will also dictate what type of data sharing is requested from the utility.
3. Determine the data sharing framework most appropriate for the City: City practitioners could set up a simple, one-way data sharing framework, or work to develop a more complex framework, depending on their needs and long-term goals, as well as the leverage points available to the city.
4. Use a long timeline for tracking outreach results: Once outreach is completed to targeted building owners and/or managers, city practitioners should track the outreach results using a long time frame of up to two or three years to determine the impact of the outreach. If resources are available, city teams can also develop customized programs based on the results of the outreach and impact or could work with their utilities to develop such programs.
5. Conduct a survey to gather information about retrofits: If data sharing is not an option, consider developing and administering a survey to building owners and property managers to gather information on retrofits and other energy-saving activities.
6. Develop an automatic opt-in to sharing data: As a long-term solution, consider the possibility of having building owners automatically opt-in to sharing their utility-related program participation data through the energy benchmarking process, which would likely require multiple cities to work with the ENERGY STAR Portfolio Manager team to explore and develop this opportunity.